aleoblue™

Project	
Type	Date
Cat. No.	

AB-SPIR-FM-AVI

AleoBlue™ Wireless Bluetooth® PIR Occ Sensor w/ Daylight Harvesting

DESCRIPTION

The AB-SPIR-FM-AVI is a fixture-mounted Bluetooth® PIR occupancy sensor that enhances lighting control and energy efficiency. It features passive infrared (PIR) motion sensing, daylight harvesting, and 0-10V dimming control, all integrated into a compact design.

With Bluetooth® Mesh connectivity, this sensor enables wireless, scalable control without the need for gateways or additional hardware. Its decentralized architecture eliminates single points of failure, ensuring reliability for commercial and industrial applications.

APPLICATIONS

Designed for indoor environments, including offices, classrooms, retail stores, and healthcare facilities, the AB-SPIR-FM-AVI provides a cost-effective and future-proof solution for modern lighting control.

SPECIFICATION FEATURES

OVERVIEW

- Bluetooth® Mesh Certified – Enables reliable, scalable, and decentralized wireless control.
- Passive Infrared (PIR) Motion Sensing – Detects occupancy for automated lighting control.
- Daylight Harvesting – Adjusts light levels based on ambient natural light.
- 0-10V Dimming Control – Supports smooth dimming with a 25mA max sinking current.
- Built-in 5A Relay – Provides direct switching for compatible lighting loads.
- On-board Antenna – Ensures strong and stable Bluetooth® connectivity.
- IP65 Rated – Dust-tight and water-resistant for enhanced durability.
- Easy Reset Options – Supports manual and remote reset for simplified commissioning.

WARRANTY

5-Year Limited Warranty – Covers defects in material and workmanship. See warranty documentation for details.

CERTIFICATION

UL Listed. DLC NLC Certified.

BENEFITS

- Energy Savings & Code Compliance – Optimized for efficiency and meets stringent energy codes.
- No Gateway Required – Reduces installation complexity and cost.
- Decentralized Control – Eliminates single points of failure, ensuring system reliability.
- Seamless Scalability – Expands effortlessly with additional Bluetooth® Mesh devices.

ORDERING INFORMATION

EXAMPLE: AB-SPIR-FM-AVI

AB	SPIR	FM	A	V	I
Series	**Controls**	**Mounting**	**Input Power**	**Dimming**	**Form Factor / Connection**
AB AleoBlue™	**SPIR** PIR Sensor	**FM** Fixture Mount	**A** AC Power	**V** 0-10V Dimming	**I** Fixture End Mount w/ Chase Nipple

Specifications and Dimensions subject to change without notice.

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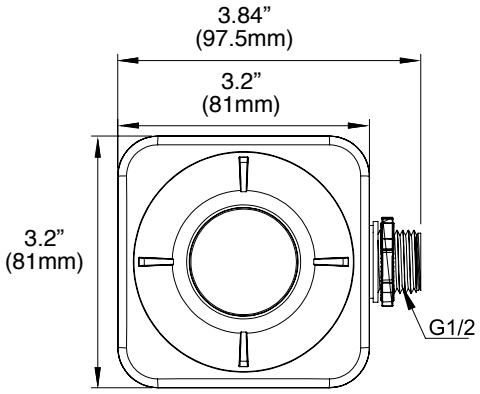
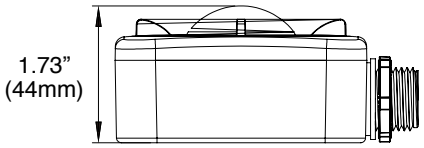
PERFORMANCE SUMMARY

Electrical	
Input Power	120/277VAC 50/60Hz
Control Output	0-10V, max 25mA sinking current
Maximum Load	Resistive/Tungsten - 600W @120V Electronic Ballast - 800W @ 120V/1200W @ 277V
Physical	
Motion Sensing	Passive IR
Detection Angle	360°
Lens L5	Max. detection radius 30ft; Max. mounting height 25ft.
Lens L6	Max. detection radius 30ft. Max. mounting height 40ft.
Operating Temperature	-40°F ~ 167°F (-40°C ~ 75°C)
Bluetooth® Range (Max.)	200ft (60m)
IP Rating	IP65

*Bluetooth® range varies based on fixture integration and environmental conditions. Perform field testing for optimal accuracy.

PRODUCT DIMENSIONS

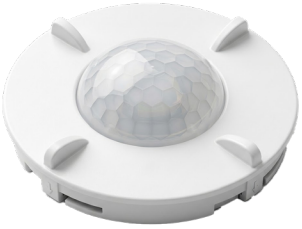




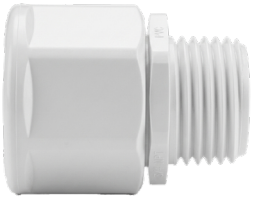
Watch Device Set Up
Tutorial Video

OPTIONAL PARTS

L5
Low Bay
(Default)



L6
High Bay



20mm
Mount Extender

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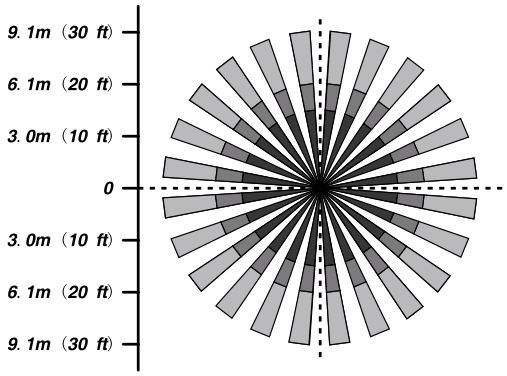
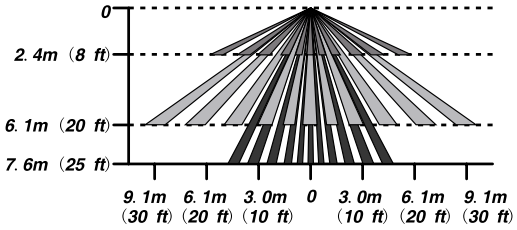
DETECTION AREA

L5 Low Bay Lens

Coverage Top View

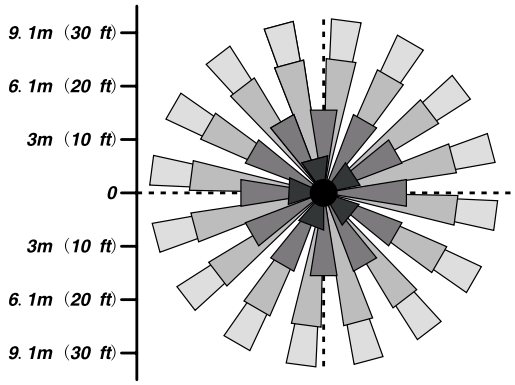


Coverage Side View

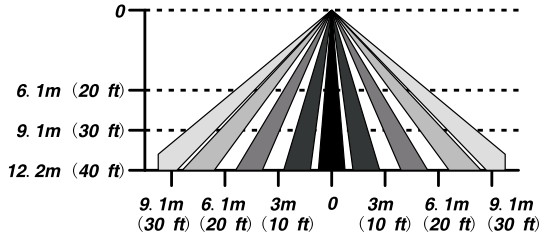


L6 High Bay Lens

Coverage Top View



Coverage Side View

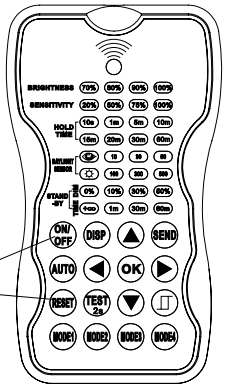


ADDITIONAL INFORMATION

Motion Indicator: Green
Status Indicator: Red

Button Reset: Hold it to reset the device. Luminaire quickly flashes to indicate success

RC100



Remote Control Reset: Point it to sensor. First press "RESET" button, then press "ON/OFF" button. Luminaire quickly flashes to indicate success.

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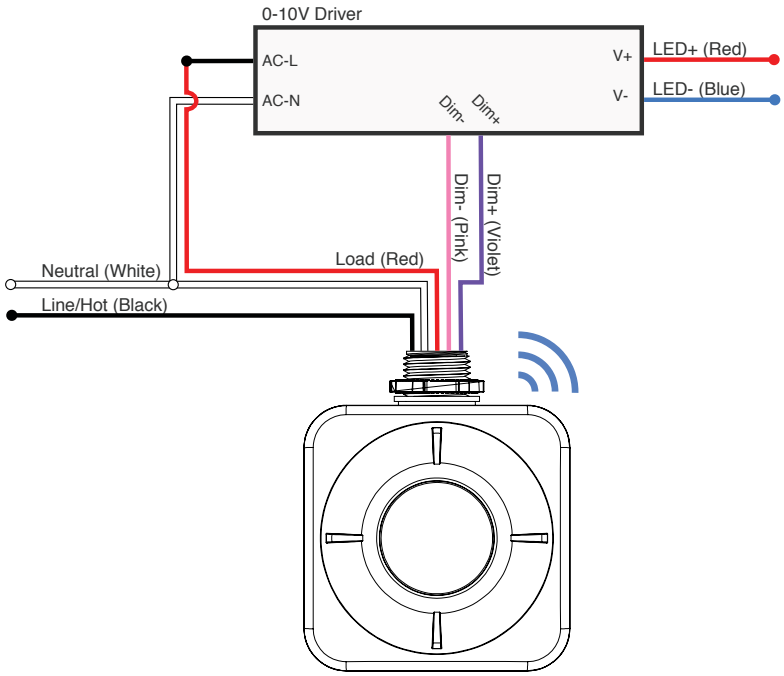
WIRING DIAGRAM

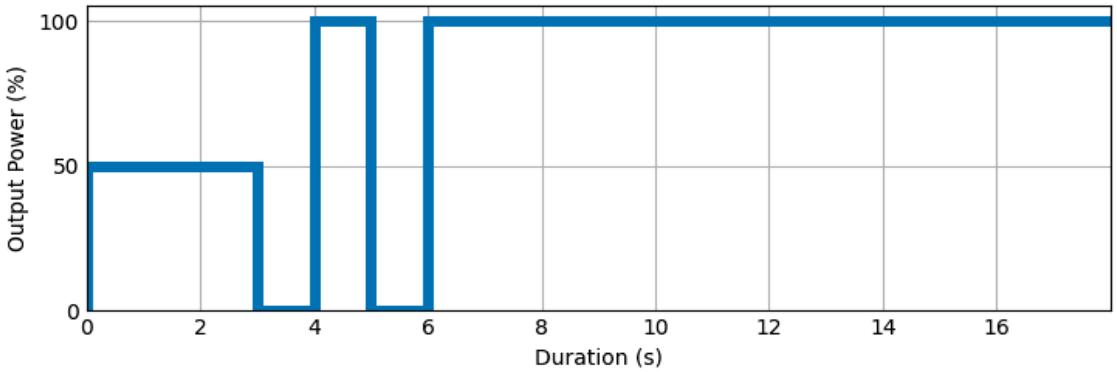


END OF LINE TESTING

The AleoBlue Sensor/Node initiates an automatic End-of-Line (EOL) test sequence upon initial power-up. This uncommissioned mode provides a visual confirmation that the fixture is operating correctly prior to integration into the AleoBlue control system.

The EOL sequence is intended for use at the end of the manufacturing line and during field installation, allowing fixture manufacturers and electrical contractors to verify proper LED functionality before commissioning.

The sequence continues until the device is provisioned into an AleoBlue network. Once commissioned, the visual test will no longer activate on power-up.



Disclaimer: Bluetooth® radio signal and range is highly dependent on the sensor integration and installation method. It is recommended to conduct testing to verify range performance and ensure proper sensor installation. Ensure that no enclosure or objects are obstructing the radio signal, as these may impact communication reliability.

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aleo | LIGHTING + CONTROLS
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aleoblue™

ALEOBLUE WIRELESS BLUETOOTH® CONTROLS

The AleoBlue is a complete solution for managing connected lighting systems using a Bluetooth® NLC lighting network. This enables seamless implementation of simple to complex lighting control scenarios without specialized training or lighting control engineering expertise.

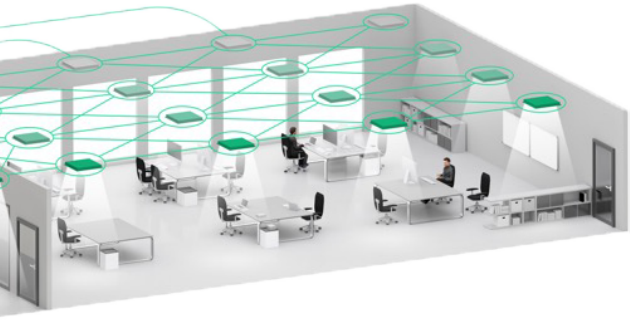
DLC NLC Qualified.

FEATURES AND BENEFITS

- Lighting Zones / Grouping
- Manual control of individual lights
- On Power up Behavior
- Zone Linking
- High-End Trim
- LLLC (Luminaire Level Lighting Controls)
- Energy Monitoring
- Optimized Energy Consumption
- Less Hassle with On-Site Adjustments
- More Savings
- Increased Safety
- More Flexibility
- Intuitive and user-friendly web and iOS apps
- No specialized training or lighting control expertise required
- Optimized for commercial spaces of any size
- No additional wiring or central control box
- Customizable lighting control parameters
- Future proof with Software Updates
- Multiple Zone Configurable
- Built-In Scenarios + Customization

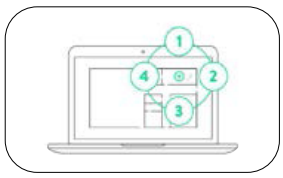
BLUETOOTH® NLC TECHNOLOGY ADVANTAGES

- The fastest low-power communication
- Scalability to thousands of devices
- The most advanced encryption standards as well as the cutting-edge device authentication
- No single point of failure (no central device)
- Compatibility with a widely available devices (smart phones & tablets – both with Bluetooth® 4.0 and Bluetooth® 5)

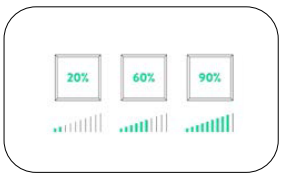


SCHEDULING

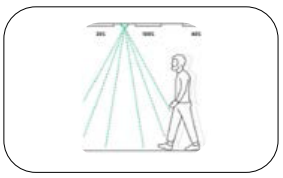
SCENES



HIGH / LOW END TRIM



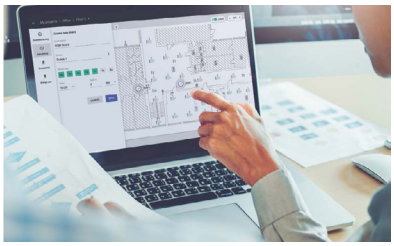
OCCUPANCY SENSING



PLANNING

Remote preparation of a retrofit project with the use of our web app. Uploading floor plans, defining individual lighting zones and choosing lighting control scenarios.

1. Import Floor Plans
2. Specify Desired Lighting Control Scenarios
3. Define Individual Lighting Zones



IMPLEMENTATION

Adding lighting devices to the Bluetooth® NLC network on-site with the use of an iOS app.

Customization and calibration of lighting control parameters during and after the commissioning process. Defining scenes for specific working activities.

1. Add Devices to Your Connected Lighting Network
2. Implement Predefined Zones and Scenarios
3. Optimize Configuration Settings if Needed

PROVISIONING / CONFIGURATIONS

The Bluetooth® NLC Node is in the Unprovisioned Mode until it is provisioned by a “Provisioner”, which typically is a smart phone with a Bluetooth® NLC compatible app.

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